

# Capital MAP (ANG) Electric Distribution System

---

## TABLE OF CONTENTS

CAPITAL MAP (ANG) EL ECTRIC DISTRIBUTION SYSTEM.....	1
J1 CAPITAL MAP (ANG) ELECTRIC DISTRIBUTION SYSTEM.....	2
J1.1 CAPITAL MAP (ANG) OVERVIEW.....	2
J1.2 ELECTRIC DISTRIBUTION SYSTEM DESCRIPTION.....	2
J1.2.1 Electric Distribution System Fixed Equipment Inventory .....	2
J1.2.1.1 Description.....	2
J1.2.1.2 Inventory .....	3
J1.2.2 Electric Distribution System Non-Fixed Equipment and Specialized Tools .....	5
J1.2.3 Electric Distribution System Manuals, Drawings, and Records .....	5
J1.3 SPECIFIC SERVICE REQUIREMENTS.....	6
J1.4 CURRENT SERVICE ARRANGEMENT .....	6
J1.5 SECONDARY METERING.....	6
J1.5.1 Existing Secondary Meters .....	6
J1.5.2 Required New Secondary Meters .....	6
J1.6 MONTHLY SUBMITTALS.....	7
J1.7 ENERGY SAVING PROJECTS.....	7
J1.8 SERVICE AREA.....	7
J1.9 OFF-INSTALLATION SITES .....	7
J1.10 SPECIFIC TRANSITION REQUIREMENTS.....	8
J1.11 GOVERNMENT RECOGNIZED SYSTEM DEFICIENCIES .....	8

## List of Tables

Fixed Inventory .....	3
Spare Parts .....	5
Specialized Vehicles and Tools .....	5
Manuals, Drawings, and Records.....	6
Existing Secondary Meters.....	6
New Secondary Meters.....	7
Service Connections and Disconnections .....	8
System Deficiencies.....	8

# J1 Capital MAP (ANG) Electric Distribution System

---

## J1.1 Capital MAP (ANG) Overview

The 183<sup>rd</sup> Fighter Wing (FW) of the Illinois Air National Guard occupies 91 acres of leased land on the Capital Municipal Airport (MAP), located approximately three miles northwest of downtown Springfield, Illinois. The mission of the 183<sup>rd</sup> FW is to provide 15 combat ready aircraft, pilots, and required support personnel capable of global deployment to perform tactical, general-purpose warfare as directed by major command authority. The unit currently flies the F-16 Falcon. The 183<sup>rd</sup> FW occupies 2 administrative and 31 industrial buildings totaling approximately 267,600 square feet with 321 full-time personnel. A unit training drill is conducted once a month and results in a surge of up to a total of 1,121 personnel.

## J1.2 Electric Distribution System Description

### J1.2.1 Electric Distribution System Fixed Equipment Inventory

The Capital MAP (ANG) electric distribution system consists of all appurtenances physically connected to the distribution system from the point in which the distribution system enters the Installation and Government ownership currently starts to the point of demarcation, defined by the Right of Way. The system may include, but is not limited to, transformers, circuits, ductbanks, lightning arrestors, fuses and switches. The actual inventory of items sold will be in the bill of sale at the time the system is transferred. The following description and inventory is included to provide the Contractor with a general understanding of the size and configuration of the distribution system. The Government makes no representation that the inventory is accurate. The Contractor shall base its proposal on site inspections, information in the technical library, other pertinent information, and to a lesser degree the following description and inventory. Under no circumstances shall the Contractor be entitled to any service charge adjustments based on the accuracy of the following description and inventory.

Specifically excluded from the electric distribution system privatization are:

?? Airfield Lighting.

?? Parking Lot Lights.

?? Street Lights.

#### J1.2.1.1 Description

Power is provided by City Water Light and Power Company (CWLP). Power enters the base at two locations and is metered at one location. It is delivered and distributed at 12.7 kV through a looped configuration. The primary distribution system consists of approximately 8,300 linear feet of 3-phase 3-wire and 4,800 linear feet of ground wire underground circuits rated at 15 kV. The underground circuits are in ductbanks buried at an average depth of 4 feet and are not marked with tracer wire. Multiple branches feed 22 three phase pad mounted transformers ranging from 75 to 750 kVA. The system includes eight 6-feet deep by 5-feet square utility vaults, 33 lightning arresters, 11 fuses, three

2-way underground switches and eight 4-way underground switches. Although peak demand is unknown, base personnel indicate the capacity of the current system is adequate for present and future needs.

### J1.2.1.2 Inventory

**Table 1** provides a general listing of the major electric distribution system fixed assets for the Capital MAP (ANG) electric distribution system included in the sale.

**TABLE 1**  
Fixed Inventory  
Electric Distribution System Capital MAP (ANG)

Item	Size	Quantity	Unit	Approximate Year of Construction
<b>Ductbanks</b>				
Four 4-inch conduits		4794	LF	1974
<b>Underground Circuits</b>	AWG			
3ph, 3 wire, 15 kV, VCLC	#6	1,267	LF	1949
3ph, 3 wire, 15 kV, BC Ground	#2	4,794	LF	1974
3ph, 3 wire, 15 kV, EPR/cc Ground	#1/0	348	LF	1974
3ph, 3 wire, 15 kV, XLP/cc Ground	#1/0	298	LF	1996
3ph, 3 wire, 15 kV, XLP/cc Ground	#1/0	437	LF	1966
3ph, 3 wire, 15 kV, XLP/cc Ground	#1/0	712	LF	1990
3ph, 3 wire, 15 kV, XLP/cc Ground	#1/0	275	LF	1988
3ph, 3 wire, 15 kV, XLP/cc Ground	#1/0	196	LF	2000
1 wire, 5 kV, BC Ground	#4	4,794	LF	1974
<b>Transformers</b>	Nom kVA			
3-phase, oil filled, pad mounted	75	3	EA	1974
3-phase, oil filled, pad mounted	112.5	1	EA	1980
3-phase, oil filled, pad mounted	150	3	EA	1974
3-phase, oil filled, pad mounted	150	1	EA	1988
3-phase, oil filled, pad mounted	150	1	EA	1959
3-phase, oil filled, pad mounted	225	1	EA	1977
3-phase, oil filled, pad mounted	225	1	EA	1990
3-phase, oil filled, pad mounted	300	1	EA	1990
3-phase, oil filled, pad mounted	300	1	EA	1966
3-phase, oil filled, pad mounted	300	1	EA	2000
3-phase, oil filled, pad mounted	300	1	EA	1987

Item	Size	Quantity	Unit	Approximate Year of Construction
3-phase, oil filled, pad mounted	500	1	EA	1965
3-phase, oil filled, pad mounted	500	2	EA	1975
3-phase, oil filled, pad mounted	500	1	EA	1987
3-phase, oil filled, pad mounted	500	1	EA	1990
3-phase, oil filled, pad mounted	750	2	EA	1975
<b>Lightning Arrestors</b>				
On Transformer		3	EA	1974
On Transformer		1	EA	1980
On Transformer		3	EA	1974
On Transformer		1	EA	1988
On Transformer		1	EA	1959
On Transformer		1	EA	1977
On Transformer		1	EA	1990
On Transformer		1	EA	1990
On Transformer		1	EA	1966
On Transformer		1	EA	2000
On Transformer		1	EA	1987
On Transformer		1	EA	1965
On Transformer		2	EA	1975
On Transformer		1	EA	1987
On Transformer		1	EA	1990
On Transformer		2	EA	1975
On Switch		3	EA	1975
On Switch		7	EA	1975
On Switch		1	EA	1983
<b>Switches</b>	Type			
underground	2-way	3	EA	1975
underground	4-way	7	EA	1975
underground	4-way	1	EA	1983
<b>Fuses</b>				
On Switch		3	EA	1975
On Switch		7	EA	1975

Item	Size	Quantity	Unit	Approximate Year of Construction
On Switch		1	EA	1983
Vaults	Size			
Brick	6 ft x 5 ft x 5 ft	2	EA	1949
Concrete	6 ft x 5 ft x 5 ft	2	EA	1949
Concrete	6 ft x 5 ft x 5 ft	4	EA	1974
Notes:				
AWG = American Wire Gauge				
EA = each				
LF = linear feet				
Nom kVA = nominal kilovolt -amperes				
ph – phase				
KV = Kilovolt				
FT = feet				
CC- Concentric ground				
BC = Bare Copper				
VCLC = Varnished Cambric Lead Covered				
EPR = Ethylenepropylene Rubber				
XLP = Cross linked polyethylene				

### J1.2.2 Electric Distribution System Non-Fixed Equipment and Specialized Tools

**Table 2** lists other ancillary equipment (spare parts) and **Table 3** lists specialized vehicles and tools included in the purchase. Offerors shall field verify all equipment, vehicles, and tools prior to submitting a bid. Offerors shall make their own determination of the adequacy of all equipment, vehicles, and tools.

**TABLE 2**

Spare Parts

Electric Distribution System Capital MAP (ANG)

Qty	Item	Make/Model	Description	Remarks
None				

**TABLE 3**

Specialized Vehicles and Tools

Electric Distribution System Capital MAP (ANG)

Description	Quantity	Location	Maker
None			

### J1.2.3 Electric Distribution System Manuals, Drawings, and Records

**Table 4** lists the manuals, drawings, and records that will be transferred with the system.

**TABLE 4**

Manuals, Drawings, and Records  
Electric Distribution System Capital MAP (ANG)

Qty	Description	Remarks
1	Base Electrical Distribution Map	AutoCAD Release Version 2000

## J1.3 Specific Service Requirements

The service requirements for the Capital MAP (ANG) electric distribution system are as defined in the Section C Description/Specifications/Work Statement. The following requirements are specific to the Capital MAP (ANG) electric distribution system and are in addition to those found in Section C. If there is a conflict between requirements described below and Section C, the requirements listed below take precedence over those found in Section C.

?? Although the duct banks are being turned over to the successful offeror, those ducts not currently used for electrical lines will be reserved for the exclusive use of the government. Additional ducts may be made available to the successful offeror at the discretion of the Contracting Officer.

## J1.4 Current Service Arrangement

?? **Current Provider:** City Water Light and Power Company (CWLP)

?? **Average Annual Usage (2000):** 3,946.7 MWH

?? **Maximum Monthly Usage:** 391.6 MWH (September)

?? **Minimum Monthly Usage:** 243.2 MWH (October)

?? **Peak demand:** Unknown

## J1.5 Secondary Metering

### J1.5.1 Existing Secondary Meters

**Table 5** provides a listing of the existing (at the time of contract award) secondary meters that will be transferred to the Contractor. The Contractor shall provide meter readings for all secondary meters IAW Paragraph C.3 and J1.6 below.

**TABLE 5**

Existing Secondary Meters  
Electric Distribution System Capital MAP (ANG)

Meter Location	Meter Description
None	

### J1.5.2 Required New Secondary Meters

The Contractor shall install and calibrate new secondary meters as listed in **Table 6**. New secondary meters shall be installed IAW Paragraph C.13 Transition Plan. After installation, the Contractor shall maintain and read these meters IAW Paragraphs C.3 and J1.6 below.

**TABLE 6**

New Secondary Meters  
Electric Distribution System Capital MAP (ANG)

Meter Location	Meter Description
None	

## J1.6 Monthly Submittals

The Contractor shall provide the Government monthly submittals for the following:

1. Invoice (IAW G.2). The Contractor's monthly invoice shall be presented in a format proposed by the Contractor and accepted by the Contracting Officer. Invoices shall be submitted by the 25<sup>th</sup> of each month for the previous month. Invoices shall be submitted to the person identified at time of contract award.
2. Outage Report. The Contractor's monthly outage report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall be submitted by the 25<sup>th</sup> of each month for the previous month. Outage reports shall be submitted to the person identified at time of contract award.
3. Meter Reading Report. The monthly meter reading report shall show the current and previous month readings for all secondary meters (if any). The Contractor's monthly meter reading report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Meter reading reports shall be submitted by the 15<sup>th</sup> of each month for the previous month. Meter reading reports shall be submitted to the person identified at time of contract award.
4. System Efficiency Report. If required by Paragraph C.3, the Contractor shall submit a system efficiency report in a format proposed by the Contractor and accepted by the Contracting Officer. System efficiency reports shall be submitted by the 25<sup>th</sup> of each month for the previous month. System efficiency reports shall be submitted to the person identified at time of contract award.

## J1.7 Energy Saving Projects

IAW Paragraph C.3 Requirement, the following projects have been implemented on the distribution system by the Government for energy conservation purposes: None.

## J1.8 Service Area

IAW Paragraph C.4 Service Area, the service area is defined as all areas within the Capital MAP (ANG) boundaries.

## J1.9 Off-Installation Sites

No off-installation sites are included in the sale of the Capital MAP (ANG) electric distribution system.

## J1.10 Specific Transition Requirements

IAW Paragraph C.13 Transition Plan, **Table 7** provides a listing of service connections and disconnections required upon transfer.

**TABLE 7**

Service Connections and Disconnections  
Electric Distribution System Capital MAP (ANG)

Location	Description
None	

## J1.11 Government Recognized System Deficiencies

**Table 8** provides a listing of system improvements that the Government has planned. The Government recognizes these improvement projects as representing current deficiencies associated with the Capital MAP (ANG) electric distribution system. If the system is sold, the Government will not accomplish these planned improvements. The Contractor shall make a determination as to its actual need to accomplish and the timing of any and all such planned improvements. Capital upgrade projects shall be proposed through the Capital Upgrades and Renewals and Replacements Plan process and will be recovered through Schedule L-3. Renewal and replacement projects will be recovered through Sub-CLIN AB.

**TABLE 8**

System Deficiencies  
Electric Distribution System Capital MAP (ANG)

Project Location	Project Description
None	